

ABSTRACT OF THE DISCLOSURE

METHOD AND SYSTEM FOR DYNAMICALLY INVERTING AN
ASYMMETRIC DIGITAL SUBSCRIBER LINE (ADSL) SYSTEM

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A method and system for dynamically inverting an Asymmetric Digital Subscriber Line (ADSL) system. The ADSL system includes a central exchange equipment (CE) connected to a service provider network and a user equipment (UE) connected to a user workstation. The CE and UE are interconnected by a PSTN link. The CE includes an input line for transmitting high-speed data from the service provider network to the user workstation and an output line for receiving medium-speed data from the user workstation. The CE further employs CE coding/decoding means for coding the high-speed data and decoding the medium-speed data. The UE includes an input line for transmitting medium-speed data from the user workstation to the service provider network and an output line for receiving high-speed data from the service provider network. The UE further includes UE coding/decoding means for coding the medium-speed data and decoding the high-speed data. In accordance with the method of the present invention, an inverting request message is transmitted from the UE to the CE. In response to the inverting request message, the CE coding/decoding means are activated for coding medium-speed data on the CE input line and decoding high-speed data on the CE output line. Next, a first acknowledgment message is transmitted from the CE to the UE informing the UE that transmission in reverse mode is authorized. In response to the first acknowledgment

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message, the UE coding/decoding means are activated. Finally, a second acknowledgment message is transmitted from the UE to the CE informing the CE that switching into reverse mode is completed.